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Titolo	Coffee [[electronic resource]] : recent developments / / edited by R.J. Clarke and O.G. Vitzthum
Pubbl/distr/stampa	Oxford ; ; Malden, MA, : Blackwell Science, 2001
ISBN	1-281-31846-9 9786611318468 0-470-69049-6 0-470-68021-0
Descrizione fisica	1 online resource (270 p.)
Collana	World agriculture series
Altri autori (Persone)	ClarkeR. J (Ronald James) VitzthumO. G
Disciplina	633.73 663 663.93
Soggetti	Coffee Coffee industry
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	COFFEE Recent Developments; Contents; Preface; List of Contributors; 1 Chemistry I: Non-volatile Compounds; 1A Carbohydrates; 1.1 Introduction; 1.2 Green coffee; 1.2.1 Low molecular weight carbohydrate; 1.2.2 High molecular weight carbohydrate; 1.3 Roast coffee; 1.3.1 Low molecular weight carbohydrate; 1.3.2 High molecular weight carbohydrate; 1.4 Soluble coffee; 1.4.1 Low molecular weight carbohydrate; 1.4.2 High molecular weight carbohydrate; 1.5 Reactions of carbohydrates on roasting; 1.6 Functional properties of coffee carbohydrates; 1.6.1 Role in soluble coffee processing; 1.6.2 Foam 1.6.3 Coffee fiberReferences; 1B Acids in Coffee; 1.7 Quantitative data on organic acids in green coffee; 1.8 Determination of organic acids in roasted coffee; 1.9 Acid formation mechanisms; 1.9.1 Acetic, formic, lactic, glycolic and other carbohydrate derived acids; 1.9.2 Quinic acid; 1.9.3 Citric and malic acid; 1.9.4 Phosphoric acid; 1.10 Acid increase on storage; 1.11 Volatile acids; 1.12 Acid content and sensory characteristics; 1.12.1 Total acidity and sour taste; 1.12.2 Acid content

and acidity; 1.12.3 Roast kinetics References; 1C Lipids; 1.13 Introduction; 1.14 Coffee oil
1.14.1 Determination of total oil content1.14.2 Isolation of coffee oil for detailed analysis; 1.15 Fatty acids; 1.15.1 Total fatty acids and fatty acids in triglycerides; 1.15.2 Free fatty acids; 1.16 Diterpenes in the lipid fraction of robusta and arabica coffees; 1.16.1 Free diterpenes; 1.16.2 Diterpene fatty acid esters; 1.16.3 Diterpenes in the lipid fraction of roasted coffees; 1.16.4 Diterpenes in coffee: health aspects; 1.17 Sterols; 1.18 Tocopherols; 1.19 Other compounds; 1.20 Coffee wax; References; 2 Chemistry II: Non-volatile Compounds,Part II; 2.1 Amino acids and Protein
2.1.1 Amino acids2.1.2 Amino acid derivatives; 2.1.3 Protein; 2.2 Fate of chlorogenic acid derivatives during roasting; 2.2.1 Quinic acid moiety; 2.2.2 Cinnamic acid derivative moiety; 2.3 Antioxidative compounds in coffee brew; 2.3.1 Compounds occurring naturally in green beans; 2.3.2 Effect of roasting on antioxidative activity; 2.4 Colored macromolecular compounds; 2.4.1 Characterization of colored polymers; 2.4.2 Characterization of the zinc-chelating compounds in coffee brews; References; 3 Chemistry III: Volatile Compounds; 3.1 Introduction; 3.2 Methodology
3.2.1 Isolation of the volatile fraction3.2.2 Screening for potent odorants; 3.2.3 Enrichment and identification; 3.2.4 Quantification; 3.2.5 Aroma models and omission experiments; 3.3 Raw coffee; 3.3.1 First studies; 3.3.2 Potent odorants; 3.3.3 Content and OAVs of odorants; 3.3.4 Contaminants causing off-flavour; 3.4 Roasted coffee; 3.4.1 Concentration of important odorants; 3.4.2 Evaluation of key odorants; 3.4.3 Arabica versus robusta coffee; 3.4.4 Influence of degree of roast; 3.4.5 Aroma changes during storage; 3.5 Coffee brew; 3.5.1 Extraction yield of potent odorants
3.6 Formation of odorants

Sommario/riassunto

Coffee, one of the most commercially important crops grown, is distributed and traded globally in a multi-million dollar world industry. This exciting new book brings together in one volume the most important recent developments affecting the crop. Contributions from around 20 internationally-respected coffee scientists and technologists from around the world provide a vast wealth of new information in the subject areas in which they are expert. The book commences with three cutting-edge chapters covering non-volatile and volatile compounds that determine the flavour of coffee. Chapters c

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Collana	Earth and Environmental Science Series
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Nota di bibliografia	Includes bibliographical references.
Nota di contenuto	Part 1 -- Chapter 1 Introduction -- Chapter 2 Global water sytems -- Part 2 -- Chapter 3 Optical Remote Sensing Systems -- Chapter 4 Satellite Geodetic Missions -- Part 3 -- Chapter 5 GEE Chapter -- Part 4 -- Chapter 6 Remote Sensing of Freshwater Habitats -- Chapter 7 Remot esensing of vegetation changes -- Part 5 -- Chapter 8 groundwater from space -- Part 6 -- Chapter 9 Impacts of Climate Change on Hydrological Cycle -- Chapter 10 Drought metrics and Indicators -- Part 7 -- Chapter 11 Hydrolological variability -- Part 8 -- Chapter 12 Statistical methods in hydrology -- Part 9 -- Chapter 13

SA_JoH -- Part 10 -- Chapter 14 JoH_Regional -- Part 11 -- Chapter 15 STOTEN -- Chapter 16 Climatic Change -- Part 12 -- Chapter 17 Flinders -- Chapter 18 Mitchell -- Part 13 -- Chapter 19 Brazil drought -- Chapter 20 LCB STOTEN -- Appendix.

Sommario/riassunto

This book highlights several opportunities that exist in satellite remote sensing of large-scale terrestrial hydrology. It lays bare the novel concept of remote sensing hydrology and demonstrates key applications of advance satellite technology and new methods in advancing our fundamental understanding of environmental systems. This includes, using state-of-the-art satellite hydrology missions like the Gravity Recovery and Climate Experiment and other multi-mission satellite systems as important tools that underpin water resources planning and accounting. This book discusses and demonstrates how the efficacy, simplicity, and sophistication in novel computing platforms for big earth observation data can help facilitate environmental monitoring and improve contemporary understanding of climate change impacts on freshwater resources. It also provides opportunities for practitioners and relevant government agencies to leverage satellite-based information in a transdisciplinary context to address several environmental issues affecting society. This book provides a general framework and highlights methods to help improve our understanding of hydrological processes and impact analysis from extreme events (e.g., droughts, floods) and climate change.